TRADITIONAL AND STRIP SCANNERS

BY THE FIRST NAME IN MICROFILM SCANNING

MEKEL Technology
A Crowley Company

THE PAST *is* THE FUTURE.

Twenty years ago, **Mekel Technology** introduced the first microfilm and microfiche scanners to the world. Today, operating under the Crowley umbrella of companies, the innovations continue and the **Mekel** name and expertise remain synonymous with superior image quality and well-built machinery.

THREE MODELS. THREE CHOICES.

The renowned **MACH-series** microfilm scanners continue to adapt to suit the varying and changing needs of the high-volume archival and records management markets. All three models feature:

- 16 mm and 35 mm microfilm conversion capability
- The latest in camera, lens and light source technology
- The highest optical dpi in the industry
- Conversion to a wide variety of electronic imaging formats, including PDF's
- ***FastFilm*** roll-film scanning and processing software with unparalleled ease-of-use

MACH V

ALL FILM. LIGHTENING SPEED.

Designed for users with a wide variety of microfilm in various states of composition, the **MACH V strip scanner** meets with enormous field success. Powered by **Mekel's** customized ***QuantumScan*** and ***QuantumProcess*** strip scanning software, it's the most advanced roll-film scanning system on the market and offers unprecedented operator efficiency.

- **Scans up to 1,000 feet** in length, standard
- **No re-loading.** Offers a wide array of manual and automatic features to ensure 100% accurate image detection
- **No re-scanning.** Hosts a sophisticated toolkit of image processing features to guarantee the best image quality possible
- **6 minutes/roll** with ***Quantum***; **350 images/minute** with ***FastFilm***
- Ideal for **fast-turnaround** or **high volume** capacity

MACH IIIQ

MIXED FILM. STRIP SCANNING

Intended for entry- or mid-level users who scan a standard film type in good condition but occasionally have need to capture differing formats or decaying film. The **MACH IIIQ** comes equipped with the ***Quantum*** software suite and maintains 100% of the ***Quantum*** functionality at 60% the speed of the **MACH V.**

- **Scans up to 1,000 feet** in length, standard
- **No re-loading.** Offers a wide array of manual and automatic features to ensure 100% accurate image detection
- **No re-scanning.** Hosts a sophisticated toolkit of image processing features to guarantee the best image quality possible
- **10 minutes/roll** with ***Quantum***; **180 images/minute** with ***FastFilm***
- Works well for **lower** volumes or **non-demanding** timetables

MACH III

SIMILAR FILM. HIGH SPEED

Mekel Technology's entry-level microfilm scanner for those consistently scanning a similar type of microfilm, the **MACH III** is an advanced roll-film scanner operating at speeds of up to 180 images per minute at 200 dpi.

Features ***FastFilm*** scanning and processing

- **Easy-access tabs** allow for quick project set-up without need for elaborate and confusing wizards
- **Advanced menus** for detailed image enhancement features
- **Dual-view capability** to view bi-tonal and grayscale images simultaneously without impacting speed
- **Image quality control and re-scan window** that allows for real-time image enhancement
- **Flexible and simple-to-use** file-naming capability

*"We took the opportunity to test a **MACH V** against our existing microfilm scanner. In eight hours of production with two of our current machines, we scanned 15 rolls. In four hours with one MACH V, we scanned 38 rolls of film."*

– Manager, a leading U.S. business process organization (BPO)

MEKEL TECHNOLOGY'S

QuantuM

*"Our operator speaks very little English, but she's making **QuantumScan** and **QuantumProcess** sing."* – Operations Manager, Southeast service bureau

Increased operator production

- Scan at full-rated speeds without operator intervention
- Share quality assurance tasks with multiple operators
- Drive multiple **MACH V** or **IIIQ** microfilm scanners with a single operator

Reduced microform scanning costs

- Never search for lost images
- Eliminate the need to re-scan

Guaranteed 100% image capture

Optimum image quality

QuantuM Scan

- Automatic Frame Detection
- Speed
- Optimum Resolution
- Template Options
- Image Quality Settings
- Advanced Focus Option
- Pre-Scan Testing
- Multiple Ribbon Output Options
- Advanced Frame Detection
- Easy Transfer
- Easy Workflow Integration

QuantuM Process

- Batch Processing
- Strip Zoom Capability
- Editing Toolkit
- Fixed-grid Frame Replication
- Blip Removal
- Irregular Frame Flag
- Custom Processing
- Multiple Output Options
- Easy Workflow Integration
- Image Enhancement
- File-naming Features
- Auto-split and Book Mode
- "Go To" Command
- Re-detect Frames

	MACH V	MACH IIIQ	MACH III
CAMERA/OPTICS			
10-bit dynamic range with gamma correction grayscale output. Full depth of pixels processed.	X	X	X
Real-time or post-scan image processing up to 5x the typical processing speed	X	X	X
Direct path imaging: camera, film and light source are in-line to ensure optimum image quality	X	X	X
80 megapixel/second camera; 160 megapixel/second output	X	X	X
Full 8,192 pixel CCD array for highest true optical dpi in the industry	X	X	X
Automatic Gain Control (AGC) to optimize image quality while scanning	X	X	X
Mekel "smoothlight" fiber optic bundle balances lighting across entire scan area; no hot spots or shadowing	X	X	X
RESOLUTION			
100-600 true optical dpi; 4x-96x reduction ratio range	X	X	X
FILM TYPES (100', 215' and 1,000' roll standard)			
Accepts ANSI, M-types and open spools	X	X	X
16mm/35mm; simplex/duplex; positive/negative	X	X	X
Silver, Diazo and Vesicular formats	X	X	X
STRIP-SCAN SPEED (100' roll)			
6 minutes per roll at 200 dpi using ***QuantumScan***	X		
12 minutes per roll at 300 dpi using ***QuantumScan***	X		
10 minutes per roll at 200 dpi using ***QuantumScan***		X	
20 minutes per roll at 300 dpi using ***QuantumScan***		X	
Complete rolls in half the time using double-speed mode	X		
ROLL-FILM SPEED (fully processed)			
Up to 350 images/700 files per minute at 200 dpi using ***FastFilm***	X		
180 images/360 files per minute at 200 dpi using ***FastFilm***		X	X
No adaptive speed control necessary	X	X	X
Complete rolls in half the time using double-speed mode	X		
HARDWARE IMAGE ENHANCEMENT			
Real-time image sharpen and enhancement done in hardware; no reduction in throughput	X	X	X
FILM CONTROL			
Electronically-controlled film format selection for precise positioning of the CCD camera and lens; high-speed rewind	X	X	X
IMAGE PROCESSING			
Task set-up by job or saved in set-up file	X	X	X
Up to 1600 images per minute	X	X	
Single, double or triple level blip code detection	X	X	X
Leading and trail edge detection	X	X	X
Simultaneous output of grayscale and bi-tonal formats	X	X	X
Output to single/multi-page, bi-tonal TIFF (G3, G4) and JPEG	X	X	X
Output to TIFF uncompressed, PDF compressed (single/multi), JPEG2000, PDF/A and others	X	X	
HARDWARE NOTABLES			
Film cleaning rollers: custom technology cleans film as it scans	X	X	X
No pinch rollers to dislodge or separate brittle/old film splices	X	X	X
Superior transport stability via vertically-aligned film transport system	X	X	X

TECHNICAL SPECIFICATIONS

Operating System: Windows 7 (32- and 64-bit), XP or Vista utilizing ***FastFilm*** and/or ***Quantum*** software by **Mekel Technology**
Power Requirements: 50Hz or 60Hz; 90-240v; 500w, single-phase switch for domestic or international use
Agency Approvals: FCC, UL and CE certification
Dimensions/Weight: 15.5" l x 15.5" w x 22" h/50 lbs.

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